

Migration and Urbanisation in North East Indian Cities

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Abstract

Migration and natural population growth drive global urban expansion, including in Northeast India. However, studies often overlook city-specific migration patterns. This paper analyses migration trends in major Northeast Indian cities, using data on migrant stocks, inter-state migration streams, urban demographics, and statistical techniques like correlation and regression. In 2011, 1.5 million migrants made up 42% of the urban population, with intra-district and inter-district migration contributing 45% and 34%, respectively. Agartala and Nagaon saw over 100% growth in migration, while Shillong declined. Urban-to-urban migration surpassed rural-to-urban migration, with employment being the primary driver (25%). Agartala and Imphal had annual urban growth of over 4%, whereas Tezpur experienced negative growth. The study finds a moderately positive relationship between migration and urbanisation. Migration influences urban growth but has a moderate effect on urbanisation. Policies should enhance infrastructure in fast-growing cities and create regional job opportunities for balanced urbanisation.

Keywords: Migration streams, interstate migration, reasons for migration, urban growth, North East India.

Introduction

Migration is defined as a movement from one migration-defining area to another, typically crossing administrative boundaries during a specific migration period and involving a change of residence (UN, 1993). Migration is a natural process that frequently occurs and is influenced by socio-economic, demographic, cultural, political, and

environmental factors affecting migrant populations. It is not merely a shift of people from one place of residence to another, but is essential for understanding the constantly changing spatial content and relationships among different areas (Gosal, 1961). Migration and urbanisation are key processes that shape regional development, especially in areas with diverse socio-

political and cultural landscapes such as North East India. This region, comprising eight states—Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, and Tripura—has experienced rapid urbanisation in recent decades. This transformation is largely driven by migration, both internal and external, which is reshaping the region's socio-economic and demographic structure (Baruah, 2020; Singh & Das, 2019). Major cities like Guwahati, Imphal, and Shillong are emerging as economic centres, attracting migrants from within the region's rural areas as well as from neighbouring countries, including Bangladesh, Myanmar, and Nepal (Datta, 2020; Gogoi, 2019). The drivers of migration in North East India are varied and complex. Internal rural-to-urban migration is mainly motivated by economic factors, such as limited employment opportunities and declining agricultural productivity in rural areas (Mitra & Banerjee, 2019; Saikia & Bhuyan, 2021).

Environmental issues such as flooding and soil erosion further exacerbate these challenges, pushing rural populations towards urban centres in search of better livelihoods (Das & Nath, 2021). Additionally, cross-border migration from neighbouring countries also plays a significant role, increasing urban populations and amplifying the demand for infrastructure and services (Singh, 2020).

Urbanisation in North East India, while fostering economic growth and modernisation, also brings

considerable challenges for urban planning and governance. The region's cities are expanding rapidly, often in an unplanned and haphazard manner, leading to various infrastructure problems, including insufficient housing, traffic congestion, and inadequate sanitation (Barua & Goswami, 2020). Additionally, the strain on natural resources such as water and land has resulted in environmental degradation, raising concerns about the sustainability of these urban systems (Sharma, 2018; Das & Nath, 2021). Socially, the region's distinctive ethnic makeup adds another layer of complexity to the urbanisation process. Northeast has been known for in-migration and conflicts stemming from the influx of migrants, yet research on outmigration from the region remains scarce (Lusome & Bhagat, 2020). The arrival of migrants has sometimes caused tensions between local populations and newcomers, especially in areas with fragile socio-political settings (Phukan & Dutta, 2017; Baruah, 2020). In many cases, rapid urban growth has intensified competition over resources, jobs, and public services, further straining inter-ethnic relations (Saikia & Bhuyan, 2021). This has made managing migration and urbanisation an essential issue for policymakers, who need to balance the economic advantages of urbanisation with the imperatives of social cohesion and environmental sustainability (Gogoi, 2019; Datta, 2020).

Despite these challenges, urbanisation also presents significant

opportunities for regional development. The expansion of urban centres can stimulate economic diversification, improve access to services, and increase connectivity with other parts of India and neighbouring countries (Barua & Goswami, 2020; Mitra & Banerjee, 2019). Cities such as Guwahati have become commercial and educational hubs, attracting investment and enhancing residents' quality of life (Singh, 2020; Phukan & Dutta, 2017). However, realising these benefits requires a coordinated approach to urban planning, infrastructure development, and migration management that addresses the specific needs of North East India's urban systems (Das & Nath, 2021; Baruah, 2020). Migration and urbanisation are transforming the major urban networks of North East India, offering both opportunities and challenges. The region's diverse socio-political and environmental contexts demand a nuanced approach to urban planning and policy making that considers not only economic growth but also social and environmental sustainability. Understanding the drivers and effects of migration and urbanisation in this region is essential for fostering inclusive and sustainable urban development in the future.

Objectives of the Study

The main objectives of the study are to analyse:

1. The migration process into the major urban systems of North East India, 2001–2011.
2. The demographic characteristics of the major urban systems of North

East India during 2001–2011, and to examine their relationships with migration.

Materials and Methodology

The primary data source for this study is the Census of India. According to the 2001 and 2011 censuses, Northeast India had 11 Class-I Urban Agglomerations (UAs) or towns in 2001, increasing to 13 in 2011. These towns are regarded as the major urban centres in Northeast India for those years. Migration data, including types, streams, and reasons, for these cities were collected from the Census of India for both 2001 and 2011. Additionally, demographic

data for these urban centres were also obtained from the Census. To ensure consistency in comparing the two census years, only the 11 towns classified as Class-I UAs in both 2001 and 2011 were included in the analysis.

Various formulas have been used in the study, which include the following:

To calculate the percentage share of a specific category in relation to a total, the following formula is used:

$$\text{Percentage Share} = \left(\frac{\text{Part}}{\text{Total}} \right) \times 100$$

Where *Part* = specific value for which to find the percentage share.

Total = the overall value or sum to which the part is being compared.

This formula has been used to find percentage shares of various types and streams of migration, as well as various reasons for migration. Additionally, it is used in migration rate, and SC/ST%, where migration

rate equals total migrants, and SC/ST% equals SC/ST population, both divided by total population.

To calculate the growth rate, the following formula is used:

$$\text{Growth Rate} = \left(\frac{\text{Value at End of Period} - \text{Value at Start of Period}}{\text{Value at Start of Period}} \right) \times 100$$

Where *Value at End of Period* = value at the end of the time period being measured.

Value at Start of Period = value at the beginning of the time period.

This formula has been used to determine growth rates of various types and streams of migration, as well as the reasons for migration, to assess change over time. Additionally, it is used in the annual urban growth rate by which the urban growth rate (decadal) is divided by 10.

The literacy rate is the percentage of the population aged 7 years and above who can read and write.

$$\text{Literacy Rate} = \left(\frac{\text{Number of Literate Persons (Age 7+)}}{\text{Total Population (Age 7+)}} \right) \times 100$$

The work participation rate is the percentage of the population that is part of the labour force (i.e., either employed or actively seeking employment).

$$\text{Work Participation Rate} = \left(\frac{\text{Total Labor Force (Employed+Actively Seeking Work)}}{\text{Total Population (Age 15+)}} \right) \times 100$$

The Pearson correlation coefficient (*r*) measures the strength and direction of the linear relationship between two variables, *X* and *Y*.

$$r = \frac{\sum(X_i - \bar{X})(Y_i - \bar{Y})}{\sqrt{\sum(X_i - \bar{X})^2 \sum(Y_i - \bar{Y})^2}}, \text{ Where } X_i \text{ and } Y_i \text{ are individual data points for}$$

variables *X* and *Y*, \bar{X} and \bar{Y} are the means of variables *X* and *Y*, and *n* = number of data points.

Multiple regression models the relationship between one dependent variable (*Y*) and two or more independent variables (X_1, X_2, \dots, X_n).

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n + \epsilon$$

Where *Y* = dependent variable (the variable being predicted),

X_1, X_2, \dots, X_n = independent variables (the predictors),

β_0 = Intercept (the value of *Y* when all *X* variables are 0),

$\beta_1, \beta_2, \dots, \beta_n$ = regression coefficients (change in *Y* for a one-unit change in X_i),

ϵ = Error term (the difference between the observed and predicted).

The paper features eleven data tables supporting the analysis, along with three clustered column charts showing growth rates by type, stream, and reasons for migration. It includes two stacked column charts and two double-clustered column combination charts that illustrate growth in interstate migration and in urban areas in major cities. A doughnut chart visualises migration stream subcategories, while a scatter plot displays the relationship between migration indicators and the annual urban growth rate. A correlation matrix highlights relationships between migration variables and urban demographics, and a map, created with ArcGIS software, shows the population size of major NE cities.

Result and Discussion

Migration Process into the Major Urban Systems of North East India, 2001-2011

The Stock of Migrants

Table 1

Percentage Share of Types of Migration into Major Cities of NE India, 2001 & 2011

Year	Cities	Total Migrants	Migration Rate	Intra-district	Inter-district	Inter-state	From Asia	From Non-Asia
2001	Agartala	65,509	24.31	48.40	13.72	7.58	30.30	0.01
	Aizawl	1,10,558	48.43	39.63	41.82	14.96	3.58	0.01
	Dibrugarh	39,305	28.55	39.94	38.49	19.34	2.23	0.01
	Guwahati	3,78,657	46.24	35.91	42.96	19.62	1.48	0.02
	Imphal	40,017	13.51	43.98	46.34	9.20	0.45	0.02
	Jorhat	50,889	37.94	65.32	19.40	14.73	0.55	0.01
	Nagaon	29,246	23.73	57.02	23.05	16.64	3.29	0.00
	Shillong	70,777	26.44	32.35	13.99	50.01	3.61	0.04
	Silchar	58,567	31.81	52.15	19.18	16.05	12.60	0.01
	Tezpur	32,754	31.08	40.42	26.19	31.22	2.13	0.04
	Tinsukia	40,066	37.06	31.76	31.52	33.54	3.17	0.01
	Total	9,16,345	34.28	40.83	33.89	20.51	4.76	0.02
2011	Agartala	1,62,858	40.71	57.72	15.00	5.93	20.87	0.45
	Aizawl	1,52,287	51.90	40.42	45.07	11.29	3.09	0.12
	Dibrugarh	66,980	43.41	54.56	27.62	16.89	0.70	0.20
	Dimapur	68,555	55.81	18.26	34.34	46.43	0.78	0.15
	Gangtok	62,161	61.98	44.22	15.92	33.39	5.86	0.47
	Guwahati	5,87,647	61.06	35.62	48.34	15.05	0.66	0.32
	Imphal	77,204	18.44	67.00	26.87	5.64	0.22	0.25
	Jorhat	74,304	48.28	67.77	19.44	12.05	0.38	0.35
	Nagaon	62,520	42.10	76.48	14.67	7.90	0.80	0.14
	Shillong	43,478	12.26	21.94	19.58	55.58	2.63	0.23
	Silchar	79,467	34.68	58.54	22.07	13.47	5.43	0.47
	Tezpur	51,775	50.51	59.77	27.69	11.54	0.83	0.16
	Tinsukia	56,246	44.50	38.64	29.05	30.92	1.10	0.26
	Total	15,45,482	42.31	45.30	34.30	16.54	3.54	0.29

Source: Computed by author from Census of India, 2001 & 2011

Table 1 summarises migrant numbers, rates, and migration types in Northeast India's major cities for 2001 and 2011. In 2001, these cities received 916,000 migrants, or 34.28% of their population, rising to 1.545 million (42.31%) by 2011. Aizawl led in migration rate in 2001 at 48.43%, while Imphal had the lowest at 13.51%. By 2011, Gangtok (61.98%) and Guwahati (61.06%) had the highest rates, with Shillong at the lowest (12.26%).

In 2001, migration into the major cities of Northeast India was predominantly driven by intra-district migration, accounting for 40.83% of the total, followed by inter-district migration (33.89%), inter-state migration (20.51%), migration from Asian countries (4.76%), and from non-Asian countries (0.02%). Intra-district migration varied significantly, ranging from 31.76% in Tinsukia to 65.32% in Jorhat. For inter-district migration, the share ranged from 13.72% in Agartala to 46.34% in Imphal. Inter-state migration was

highest in Shillong at 50.01% and lowest in Agartala at 7.58%. Agartala, the capital of Tripura, also had the highest percentage of international migrants, predominantly from Asian countries, at 30.3%.

By 2011, intra-district migration continued to dominate, increasing to 45.30%, followed by inter-district (34.30%), inter-state (16.54%), migration from Asian countries (3.54%), and from non-Asian countries (0.29%). Intra-district migration ranged from 76.48% in Nagaon to 18.26% in Dimapur. For inter-district migration, the share ranged from 48.34% in Guwahati to 14.67% in Nagaon. Inter-state migration was again highest in Shillong at 55.58% and lowest in Imphal at 5.64%. Agartala once more hosted the highest percentage of international migrants from Asian countries, with 20.87%.

As Northeastern states are located on the eastern side of the country's border, there has always been a massive influx of immigrants from the surrounding countries. Nearly 4 lakh people were international migrants in the different cities of Northeast India (Rahul & Rulu, 2023). Illegal immigration, especially from Bangladesh, has made the population dynamics worse, which increasingly reduces the number of indigenous people (Banati, 2015). The migration from present-day Bangladesh has been extensive, and its role in altering the demographic profile of the North East, particularly in cities in Assam and Tripura, has been significant (Bhaumik, 2005; Baruah, 2005; Sharma, 2012). Migration has shown

significant changes in demography, economy, socio-political framework, and environment in areas adjoining Bangladesh (Nath et al., 2012; Sharma, 2015; Das, 2016); however, the economic and social manifestation of the illegal influx is also visible in interior parts of the region like Nagaland and Manipur, using major cities of Assam like Guwahati and Silchar as corridor (Singh, 2009; Singh, 2016). The issue of illegal migration from Bangladesh can be considered the major cause behind the adoption of the Citizenship Amendment Bill by the Indian Parliament in 2019 (Bhowmik, 2021).

Much movement stems from internal displacement due to natural disasters like earthquakes and floods, as well as ethnic violence, language conflict, and development policies (Phukan, 2013). Displacement affects various ethnicities and religions, with conflicts occurring both between and within tribes, such as the Brus and Mizos in Mizoram, and the Nagas, Kukis, and Paites in Manipur (Ali, 1998; Phanjoubam, 2007). The indigenous population has faced marginalisation, and ongoing ethnic conflicts have altered the land-man ratio in the region (Bhowmik, 2021).

Figure 1 highlights the migration growth rates for major cities in Northeast (NE) India across various migration types. Between 2001 and 2011, the region's major cities collectively gained an additional 498,421 migrants.

The overall migration growth rate during this period was 54.39%, though growth varied significantly by migration category. Intra-district

migration grew by 76.44%, while inter-district migration increased by 59.96%. Inter-state migration, however, recorded a much lower growth rate of 8.08%, and migration from other Asian countries increased by 15.74%.

During this period, Guwahati experienced the largest influx of migrants, with an increase of 208,990 people, while Tinsukia saw the smallest increase, with 16,180 migrants. Agartala recorded the highest percentage growth at 148.6%, whereas Silchar experienced the lowest at 35.69%. Shillong, in contrast, saw a decline in migrant numbers, losing 27,299 people, which corresponds to a negative growth rate of -38.57%. This decline was evident across most migration categories, except for migrants arriving from

non-Asian countries, signalling a halt in urban growth and a shrinking urban character for Shillong.

For intra-district migration, Agartala again led with a growth rate of 196.49%, while Aizawl recorded the smallest increase at 40.5%. In terms of inter-district migration, Agartala posted a growth rate of 171.74%, with Imphal trailing at 11.87%. Agartala also led in inter-state migration with a growth rate of 94.66%, while Nagaon had the lowest at 1.54%. Tezpur saw a significant negative growth rate of -41.56%. Most major cities in NE India experienced negative growth in international migrants, except for southern cities like Agartala, which saw a considerable increase of 71.28%, and Aizawl.

Figure 1

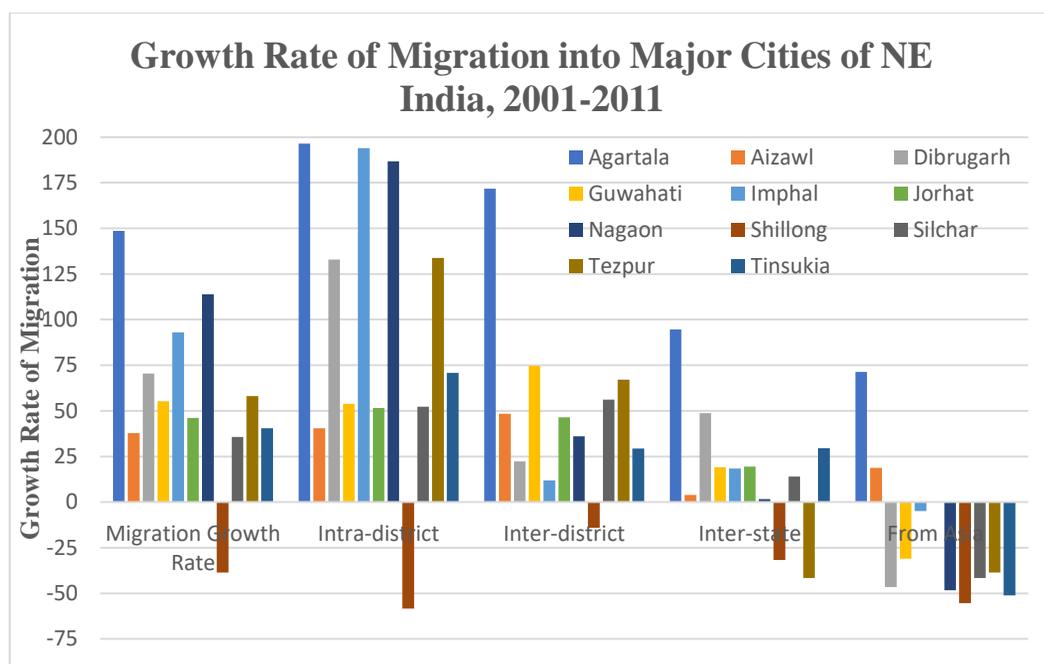


Figure 1 shows that Agartala had the highest migration growth rate across all migration categories. In contrast, Silchar and Aizawl recorded the lowest growth rates across the various migration categories. Notably, Shillong was the only city to experience negative growth across all migration categories, while Tezpur registered negative growth, specifically in inter-state migration.

Most of the migrants in Guwahati engaged in petty work in the informal sector are capable of supporting their livelihood due to the diverse work generated in the urban informal sector, which is absent in the rural areas, yet an improvement in their standard of living is doubtful (Hazarika, 2016). Inadequate investment in rural areas in Assam adversely affects livelihoods and prompts outmigration. Again, high population growth in rural areas can increase pressure on land and other resources, creating a labour surplus that drives migration (Sharma & Nath, 2021). Migration has been a very contentious issue in the state of Assam and Guwahati city in particular. This has led to a manifold increase in migration-related issues, including the creation of slum pockets, population density, the formidable growth of the informal sector, and poor living conditions, among others (Choudhury, 2024).

When we talk about rural and hill areas, illegal migrants from Myanmar come to mind. Most migrants, other than those from Myanmar, who live in Jiribam, come directly to the valley, particularly to Imphal city (Singh, 2016). The long-lasting effects of

migration on Imphal are directly related to the imbalance in population growth and the rise in unemployment and welfare benefits. The rapid growth of the population due to irregular migration may lead to overpopulation with falling living standards in the receiving society (Devi & Islam, 2012). As of June 30, 2022, there were an estimated 1,086,000 Myanmar refugees and asylum seekers in neighbouring countries, with an estimated 49,600 crossing into the states of Manipur and Mizoram as of early December 2022 (UNHCR, 2022). The Myanmar conflict has unavoidably influenced the border with India, particularly in security terms, due to the geographical proximity and socio-economic ties between the people (Atchareeya et al., 2023). The migration and settlement of non-tribal populations in Agartala led to a significant population shift, which became a key factor in the region's conflicts. This demographic change, combined with cultural differences between tribal and non-tribal groups and the historical grievances faced by the tribal communities under both monarchical rule and during the transition to democracy, underscores migration as a major driver of ethnic violence in the region (Ali, 2011). In 2011, the majority of the migrants in Gangtok had come seeking better job opportunities in different sectors, especially in the tourism industry (Rai & Singh, 2022).

Streams of Inter-state Migration

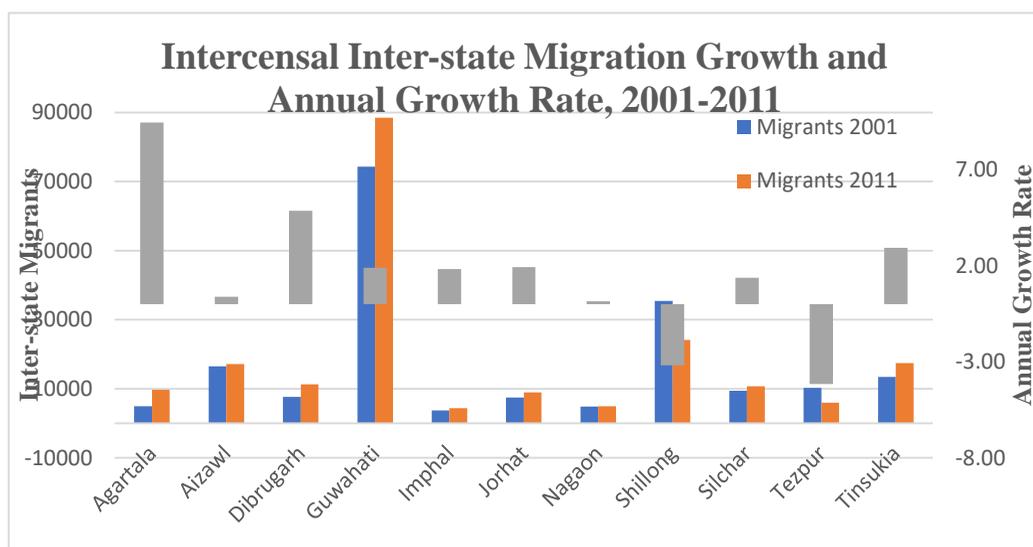
Several studies (Davis, 1951; Chatterjee, 1977; Premi, 1990;

Zachariah, 1964; Srivastava, 2011; Bell et al., 2015; Kone et al., 2018) found that the intensity of interstate migration in India was low but pointed out the fact that it is a significant component of labour mobility. Figure 2 presents data on inter-state migration into major cities of Northeast India for 2001 and 2011, highlighting the absolute growth and annual growth rates. Among the cities, Guwahati received the highest number of inter-state migrants, with 74,303 in 2001 and 88,430 in 2011. In contrast, Imphal saw the fewest migrants, with only 3,683 in 2001 and 4,357 in 2011. Shillong also experienced significant migration, with 35,396 migrants in 2001, though this dropped to 24,166 in 2011. In absolute terms, Guwahati saw the largest increase, adding 14,127 migrants over the decade, while Nagaon had the smallest, with just 75 new migrants. Conversely, both Shillong and Tezpur experienced

declines, with decreases of 11,230 and 4,250 migrants, respectively. Looking at percentage changes, Agartala recorded the highest growth rate, with a 9.47% increase in migrants, whereas Nagaon saw a modest 0.15% rise. However, both Tezpur and Shillong experienced percentage declines of -4.16% and -3.17%, respectively. The inter-migrants found in Imphal city were mostly engaged as businessmen or semi-skilled or unskilled labourers, eager to take any job and prepared to adjust to any circumstances. At the same time, native people were reluctant to take up blue-collar jobs taken by the migrants (Bharadwaj, 2020).

Economic insecurity in the region's rural areas led to increased rural-urban migration. Capital towns and cities have absorbed and accommodated most of the rural-urban streams of migration (Saitluanga, 2020).

Figure 2



Rural outmigration is the migration of people from rural areas to cities, whether voluntary or forced, to improve their standard of living (Debnath et al., 2017). Male migration (age group 15–25) rate is greater from rural to urban areas due to educational and employment opportunities (Nath & Choudhury, 1995). A large part of rural-to-urban migration into Itanagar can be explained by push factors, namely the lack of diversification of the agrarian economy, and pull factors, namely the demand for a high-skilled, semi-skilled, and unskilled workforce required for all-around development (Mandal et al., 2022).

Table 2 illustrates the rural-urban and urban-urban migration streams into the major cities of Northeast India, with percentage breakdowns across the intra-district, inter-district, and inter-state categories for 2001 and 2011. In 2001, Guwahati recorded the highest influx of migrants from both rural (220,714) and urban (75,098) areas. In contrast, Tezpur and Nagaon saw the lowest rural (13,728) and urban (4,424) migrant streams, respectively. Within the rural-urban migration stream in 2001, Agartala had the highest share of intra-district migrants (65.58%), Imphal led in inter-district migration (51.19%), and Shillong dominated the inter-state category (48.80%).

On the other hand, Tinsukia recorded the lowest share of intra-district migrants (28.16%), Nagaon had the smallest inter-district share (18.90%), and Agartala had the lowest inter-state share (9.24%). For the urban-urban migration stream in

2001, apart from Agartala (58.25%) and Aizawl (38.59%), no city reported significant intra-district migration. Imphal led in inter-district migration (72.69%), while Shillong had the highest inter-state migration share (88.47%).

Conversely, Shillong saw the lowest inter-district share (11.53%), and Aizawl recorded the lowest intra-district share (23.49%). In 2011, Guwahati again received the largest number of migrants from both rural (256,402) and urban (284,286) areas, while Tezpur and Nagaon had the smallest rural (19,548) and urban (11,291) streams, respectively. In the rural-urban stream for 2011, Nagaon had the highest percentage of intra-district migrants (71.95%), Guwahati led in inter-district migration (70.24%), and Dimapur saw the most inter-state migration (56.06%).

In contrast, Dimapur had the lowest intra-district share (6.74%), Nagaon had the smallest inter-district share (16.72%), and Agartala had the lowest inter-state share 5.37%. For the urban-urban migration stream in 2011, Nagaon recorded the highest intra-district share (78.62%), Tinsukia led in inter-district migration (35.99%), and Shillong had the highest inter-state migration share (71.12%). On the lower end, Shillong saw the smallest intra-district (18.68%) and inter-district (10.20%) shares, while Imphal had the lowest inter-state share (4.53%).

A rise in a country's urbanisation level could be caused either by migration from rural to urban areas or faster population growth in urban areas than in rural areas (Zhang &

Song, 2003). The population redistribution process might represent the restructuring of agricultural production, implying a decline in on-farm employment and the migration of young people from rural areas to towns and cities (Fielding, 1989). Mechanisation in agriculture has displaced many unskilled or low-skilled migrants, often from marginalised groups, thereby increasing rural-to-urban migration and affecting informal jobs, urban housing, slum growth,

education, healthcare, and urban poverty and inequality (Parida & Raman, 2020).

In 2001, the major cities of Northeast India received a total of 463,570 migrants (70.77%) from rural areas and 191,489 migrants (29.23%) from urban areas of India, showing a significant disparity between rural-urban and urban-urban migration, as illustrated in Figure 3. Rural-urban migration outpaced urban-urban migration significantly.

Table 2

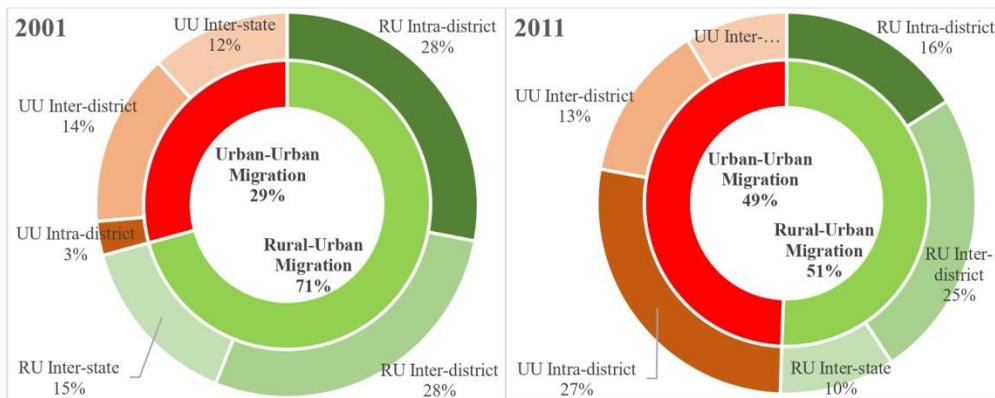
Percentage Share of Streams of Inter-state Migration into Major Cities of NE India, 2001 & 2011

Year	Cities	Rural-Urban Migrants (%)				Urban-Urban Migrants (%)			
		Total	Intra-district	Inter-district	Inter-state	Total	Intra-district	Inter-district	Inter-state
2001	Agartala	18,817	65.58	25.18	9.24	10,828	58.25	16.91	24.84
	Aizawl	66,952	38.94	48.72	12.35	32,297	38.59	37.92	23.49
	Dibrugarh	17,497	39.30	35.35	25.35	9,701	Nil	72.91	27.09
	Guwahati	2,20,714	34.36	46.91	18.73	75,098	Nil	62.52	37.48
	Imphal	15,340	38.87	51.19	9.95	6,316	Nil	72.69	27.31
	Jorhat	24,914	60.94	21.14	17.91	5,856	Nil	60.16	39.84
	Nagaon	15,525	60.61	18.90	20.49	4,424	Nil	68.29	31.71
	Shillong	30,074	30.44	20.76	48.80	20,125	Nil	11.53	88.47
	Silchar	19,806	55.49	25.55	18.95	9,603	Nil	50.84	49.16
	Tezpur	13,728	43.63	31.65	24.72	7,972	Nil	41.73	58.27
	Tinsukia	20,203	28.16	25.77	46.07	9,269	Nil	63.21	36.79
Total	4,63,570	39.58	39.69	20.73	1,91,489	9.80	49.94	40.26	
2011	Agartala	67,198	71.35	23.28	5.37	47,366	72.31	16.00	11.69
	Aizawl	87,847	30.74	59.80	9.45	42,227	46.52	33.79	19.69
	Dibrugarh	20,760	33.94	35.70	30.36	34,874	59.10	28.56	12.33
	Dimapur	29,629	6.74	37.20	56.06	33,202	23.20	34.55	42.25
	Gangtok	26,541	35.23	25.81	38.96	20,797	47.02	10.63	42.36
	Guwahati	2,56,402	12.74	70.24	17.02	2,84,286	53.94	31.67	14.39
	Imphal	19,548	33.67	55.13	11.21	42,773	76.34	19.13	4.53
	Jorhat	32,174	65.00	21.39	13.62	28,052	64.36	22.05	13.60
	Nagaon	22,483	71.95	16.72	11.33	34,231	78.62	14.98	6.40
	Shillong	22,561	20.83	28.58	50.58	16,527	18.68	10.20	71.12
	Silchar	30,159	61.13	27.20	11.66	36,319	57.40	23.78	18.83
	Tezpur	34,473	40.75	36.33	22.91	11,291	49.95	28.06	21.99
	Tinsukia	23,836	29.02	25.17	45.80	27,312	42.82	35.99	21.19
Total	6,73,611	31.74	48.71	19.55	6,59,257	55.25	27.05	17.70	

Source: Computed by author from Census of India, 2001 & 2011

Figure 3

Graphical Breakdown of Streams of Migration, 2001 & 2011



Of the rural-urban migrants, 28.01% were intra-district, 28.09% were inter-district, and 14.67% were inter-state. For urban-urban migrants, 2.87% were intra-district, 14.60% were inter-district, and 11.77% were inter-state. By 2011, the major cities received 673,611 migrants (50.54%) from rural areas and 659,257 migrants (49.46%) from urban areas of India, indicating a near-equal balance between the two streams. Among the rural-urban migrants, 213,797 (16.04%) were intra-district, 328,140 (24.62%) were inter-district, and 131,674 (9.88%) were inter-state. For urban-urban migrants, 364,212 (27.33%) were intra-district, 178,346 (13.38%) were inter-district, and 116,699 (8.76%) were inter-state.

Figure 4 highlights the growth rates of inter-state streams of migration and their relative percentage to city population in the cities of Northeast India between 2001 and 2011. The growth rate of rural-urban migration during this period was 45.31%. In contrast,

urban-urban migration had a significantly higher growth rate of 244.28%, more than five times that of rural-urban migration. Among the cities, Agartala experienced the highest growth in rural-urban migration, with an impressive 257.11% increase, while Guwahati recorded the lowest growth at 16.17%. Unfortunately, Shillong experienced a decline in rural-urban migration of -24.98%. For urban-urban migration, Nagaon recorded the highest growth rate at 673.76%, while Aizawl had the lowest at 30.75%. Shillong, once again, faced a decline, with a 17.88% decrease in urban-urban migration during the same period.

The growth rate of rural-urban migration relative to the city population was 16.16%, while urban-urban migration grew by an impressive 175.21%, more than ten times that of rural-urban migration. Among the cities, Tezpur recorded the highest growth in rural-urban migration at 158.45%, whereas Tinsukia had the lowest at 0.93%.

Notably, Shillong, Imphal, and Guwahati experienced declines in rural-urban migration. For urban-urban migration, Nagaon recorded the highest growth rate, at 542.29%, while Aizawl had the lowest, at 1.72%. Shillong once again experienced a decline in this category. Figure 4 shows that the growth rates of rural-urban migration and their percentage relative to the city population were generally lower. However, Agartala and Tezpur had the highest growth rates in rural-urban migration, while Tinsukia led in the percentage of rural-urban migration relative to the city population. In contrast, urban-urban migration and its percentage of the city population generally exhibited higher growth rates. Notably, Shillong and Tezpur had the

lowest growth rates in both urban-urban migration and the percentage of rural-urban migration relative to city population.

Reasons for Interstate Migration

Table 3 presents the percentage distribution of reasons for inter-state migration into major cities of Northeast India for the years 2001 and 2011. In 2001, 23.25% of migrants moved for work or employment, 22.49% relocated with their household, and 21.20% migrated for other reasons. The percentages for migration due to moving after birth, education, business, and marriage were relatively low, accounting for 1.54%, 3.25%, 13.14%, and 15.14%, respectively.

Figure 4

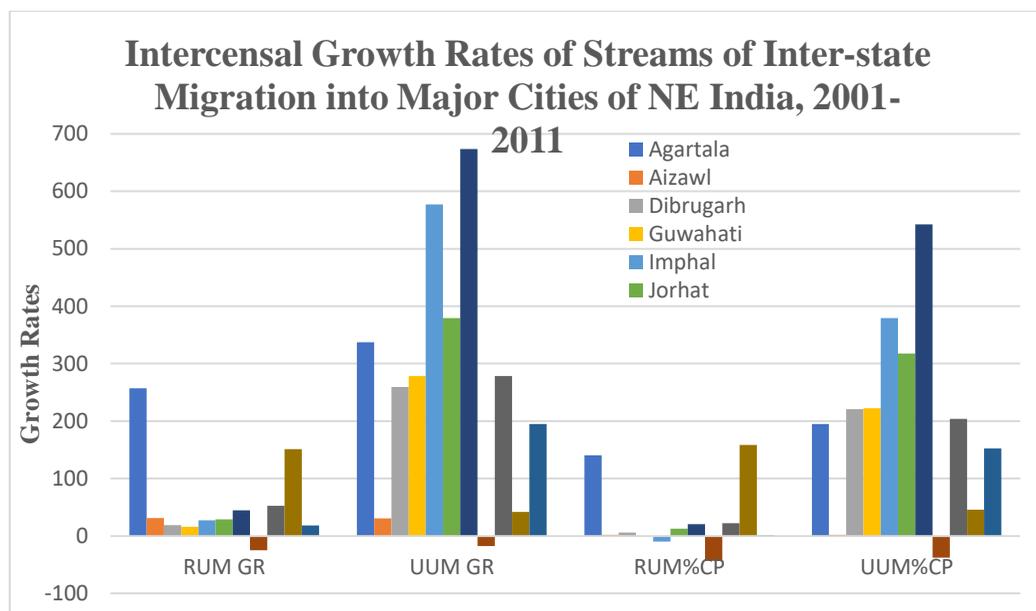


Table 3

Percentage Share of Reasons for Inter-state Migration into Major Cities of NE India, 2001 & 2011

Year	Cities	Work/ Employment	Business	Education	Marriage	Moved after birth	Moved with household	Others
2001	Agartala	23.82	4.23	2.14	20.13	1.45	27.64	20.59
	Aizawl	46.11	2.47	4.15	5.76	0.79	28.56	12.14
	Dibrugarh	17.89	21.02	1.70	21.44	1.07	15.32	21.57
	Guwahati	20.23	16.84	1.87	15.46	1.86	23.17	20.58
	Imphal	20.47	10.89	1.60	14.23	0.24	18.57	33.99
	Jorhat	17.28	22.36	2.28	11.03	1.17	20.99	24.88
	Nagaon	14.61	24.87	0.60	21.95	1.75	18.72	17.51
	Shillong	29.20	4.12	8.78	16.55	1.72	16.95	22.69
	Silchar	21.28	11.25	2.84	18.96	1.70	22.86	21.10
	Tezpur	7.21	7.61	1.23	9.53	0.84	39.48	34.10
	Tinsukia	19.72	25.12	0.33	17.50	1.44	18.07	17.82
Total	23.25	13.14	3.25	15.14	1.54	22.49	21.20	
2011	Agartala	22.82	2.45	1.72	23.60	0.98	30.35	18.07
	Aizawl	38.78	3.09	3.09	7.28	0.91	31.79	15.05
	Dibrugarh	22.45	15.69	1.25	27.73	1.62	13.57	17.70
	Dimapur	26.05	14.63	1.65	20.95	1.45	18.48	16.80
	Gangtok	34.55	5.77	2.97	21.91	2.42	15.71	16.66
	Guwahati	22.37	12.30	1.86	23.25	2.56	21.53	16.13
	Imphal	12.88	22.75	1.42	22.52	2.13	22.58	15.72
	Jorhat	19.61	22.11	0.86	20.79	2.88	15.75	18.00
	Nagaon	17.20	16.90	0.59	29.33	1.78	20.10	14.11
	Shillong	30.46	6.09	6.55	25.46	4.77	12.50	14.18
	Silchar	16.66	12.89	1.95	27.76	1.82	26.01	12.91
	Tezpur	17.85	15.81	1.42	26.61	1.99	19.29	17.02
	Tinsukia	25.15	17.10	0.94	24.55	2.17	16.67	13.42
	Total	25.19	11.68	2.28	22.58	2.32	20.09	15.86

Source: Computed by author from Census of India, 2001 & 2011

The majority of interstate migration to these cities was driven by household relocation and other factors, followed by migration for work. Migration due to moving after birth and education had the smallest shares. Notably, Aizawl saw the highest share of inter-state migrants moving for work, with 46.11% of its total. Tinsukia led in business-related migration at 25.12%, closely followed by Nagaon at 24.87%. For marriage-related migration, Nagaon and Dibrugarh topped the list with 21.95% and 21.44% respectively. Tezpur had the highest percentage of migrants relocating with their households, while Shillong received the largest

share of migrants (8.78%) moving for educational purposes.

In 2011, 25.19% of migrants moved to the major cities of NE India for work or employment, 22.58% for marriage, 20.09% to relocate with their household, and 15.86% for other reasons. Migration for education, moving after birth, and business accounted for smaller percentages, at 2.28%, 2.32%, and 11.68%, respectively. The majority of interstate migration to these cities was driven by work, employment, and marriage. Household relocation and marriage made up the second-largest share, while migration for education

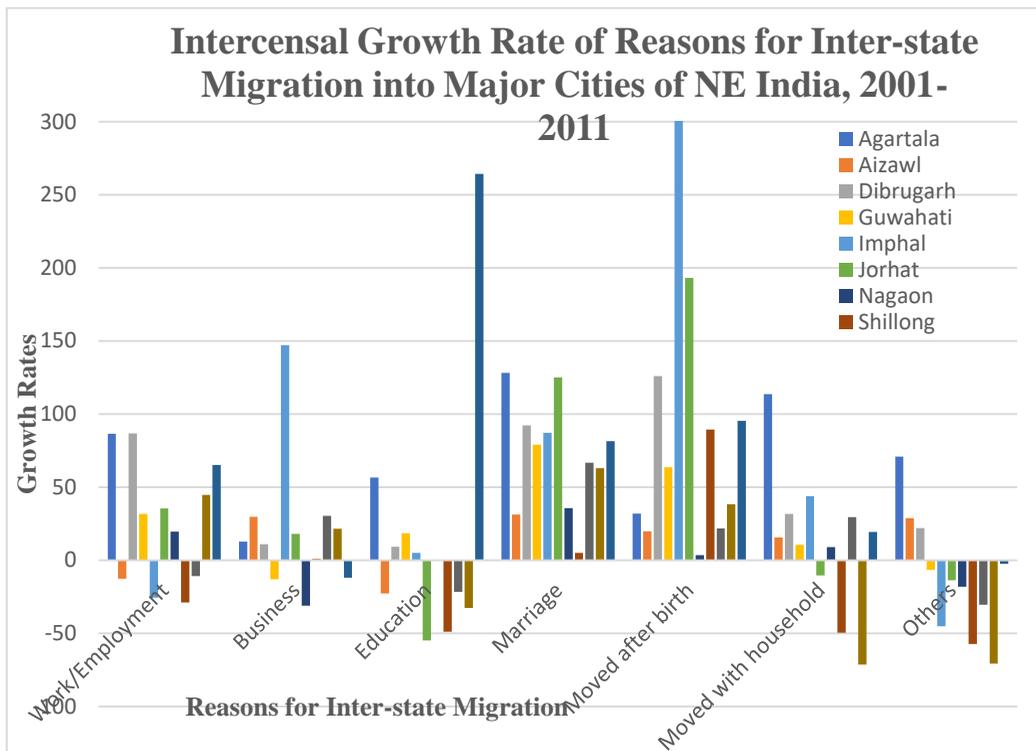
and post-birth migration had the smallest shares.

Notably, Aizawl had the highest share of inter-state migrants moving for work, with 38.78%, followed by Gangtok at 34.55%. Imphal and Jorhat led in business-related migration, with 22.75% and 22.11% respectively. Nagaon topped the list for marriage-related migration at 29.33%, closely followed by Silchar and Dibrugarh. Aizawl and Agartala had the highest percentage of migrants relocating with their household, at 31.79% and 30.35%, respectively. Lastly, Shillong received the largest share of migrants (6.55%) moving for educational purposes. The majority of students from Nagaland, Manipur, and Mizoram reported that studying in Shillong was better than studying in their hometowns, as they perceived that educational facilities in Shillong were far better than those at their home colleges, and this was an important factor motivating their decision to come and study in Shillong (Longkumer, 2015). Researchers often overlook female outmigration, associating it mainly with marriage. Premi (1980) noted that rural women migrate more frequently for short distances, whereas medium- and long-distance migrations target urban areas. Recently, women have also migrated for education, employment, and informal-sector work. In Meghalaya's matrilineal society, marriage-related outmigration has minimal impact, resulting in low female migration overall (Debnath & Ray, 2017).

Figure 5 presents the growth rates of various reasons for inter-state migration into major cities of Northeast India between 2001 and 2011. Migration due to moving after birth recorded a significant 72.01% growth, followed by migration for marriage at 63.44%, while work/employment-related migration saw a more modest 12.06% increase. In contrast, migration for education, business, moving with households, and others experienced negative growth rates of -23.27%, -2.80%, -0.09%, and -20.27%, respectively. Among the cities, Agartala showed the highest growth in several categories: marriage (125.23%), moving with households (113.70%), and others (70.84%). It also recorded the second-highest growth in work/employment-related migration at 86.55%. Imphal, on the other hand, had the highest growth in business-related migration (147.13%) and in migration that moved after birth (933.33%). Tinsukia led in education-related migration with a remarkable growth rate of 264.44%.

Jorhat recorded the second-highest growth in migration due to marriage (125.03%) but the steepest decline in education-related migration (-54.97%). Shillong experienced the largest drop in work/employment-related migration (-28.78%) and had the lowest growth in migration due to marriage (5.04%). Nagaon had the sharpest decline in business-related migration (-30.99%) and the smallest increase in migration due to birth (3.53%).

Figure 5



Note: The graph of Imphal's growth rate with Moved after birth is shortened more than three times to highlight other small details.

Lastly, Tezpur saw the most significant migration-related losses: moving with households (-71.44%) and others (-70.83%). Figure 5 illustrates that most cities experienced higher migration growth rates due to marriage and post-birth moves. In contrast, migration related to education and other reasons generally showed a negative growth trend.

Demographic Characteristics of the Major Urban Systems of North East India and their Relationships with Migration, 2001-2011

Table 4 summarises the demographics of major cities in

Northeast India for 2001 and 2011, while Table 5 highlights the changes during this period. In 2001, these cities had a combined population of 2.7 million, with Guwahati being the largest at 818,809 residents and Tezpur the smallest at 105,377. The total urban area was 644.18 sq. km., with Guwahati covering 216.79 sq. km. and Nagaon just 15.86 sq. km. Guwahati represented 30.63% of the population and 33.65% of the urban area. Imphal had the highest sex ratio at 1,019 females per 1,000 males, while Tezpur had the lowest at 760. Tezpur also boasted the highest literacy rate at 83.01%, while Nagaon was the lowest at 74.74%. Shillong

had the highest percentage of Scheduled Caste and Scheduled Tribe populations at 57.87%, with Tinsukia having the lowest at 6.39%.

By 2011, the population of the major cities had grown to 3.3 million. Guwahati remained the largest city, with 962,334 residents, while Tezpur, with 102,505 people, became the least populous. The total urban area increased to 729.84 sq. km, with Guwahati covering 219.06 sq. km. Nagaon, at 18.21 sq. km., remained the smallest city by area. Guwahati accounted for 28.78% of the population and 30.01% of the urban area of major cities. Imphal continued to lead in sex ratio, with 1,050 females per 1,000 males, while Tinsukia had the lowest, at 875 females per 1,000 males. Aizawl had the highest literacy rate at 86.29%, followed closely by Agartala at 86.18%. Nagaon had the lowest literacy rate at 78.34%. Aizawl also had the highest percentage of SC/ST population (92.02%), while Tinsukia had the lowest, at 6.94%. Additionally, Aizawl recorded the highest work participation rate, at 46.49%, followed by Imphal at 45.10%, with Silchar having the lowest rate, at 38.44%.

If a city's population grows at an annual rate of more than 2 per cent for more than 10 years, it becomes very difficult to maintain the city's health and quality (Kojima, 1996). Between 2001 and 2011, the major cities experienced an average annual urban growth rate of 2.51%. As shown

in Figure 6, Agartala recorded the highest growth rate of 4.84% per year, followed by Imphal at 4.18%. Conversely, Tezpur experienced a population decline of -0.27% annually. While Aizawl, Dibrugarh, and Jorhat showed no change in urban area, Shillong experienced the largest expansion, increasing by 33.77 sq. km. Silchar saw the smallest expansion, with just a 0.01 sq. km. increase, followed by Tinsukia with 0.38 sq. km.

Tezpur recorded the largest improvement in sex ratio, increasing by 199 females per 1,000 males, while Agartala had the smallest rise, with just a 5-female increase. In terms of literacy, Guwahati had the highest improvement, with an increase of 5.81%, while Tezpur was the only city to see a decline, with a drop of -1.49%. Silchar recorded the largest increase in the percentage of the SC/ST population, rising by 4.17%, while Nagaon and Imphal experienced slight decreases of 1.00% and 0.16%, respectively.

Table 4
Demographic Characteristics of Major Urban Systems of NE India, 2001 & 2011

Year	Cities	City Population	Area	Sex Ratio	Literacy Rate	SC/ST %	WPR
2001	Agartala	2,69,492	34.38	993	-	-	
	Aizawl	2,28,280	128.98	968	-	-	
	Dibrugarh	1,37,661	25.83	878	78.57	12.13	
	Guwahati	8,18,809	216.79	835	77.07	8.68	
	Imphal	2,96,239	55.51	1019	78.07	8.94	
	Jorhat	1,34,117	59.64	880	77.11	8.37	
	Nagaon	1,23,265	15.86	899	74.74	9.73	
	Shillong	2,67,662	27.05	990	76.45	57.87	
	Silchar	1,84,105	30.38	952	75.96	10.00	
	Tezpur	1,05,377	23.47	760	83.01	8.57	
	Tinsukia	1,08,123	26.29	815	75.72	6.39	
Total	26,73,130	644.18	907	-	-		
2011	Agartala	4,00,004	58.84	999	86.18	24.36	39.91
	Aizawl	2,93,416	128.98	1025	86.29	92.02	46.49
	Dibrugarh	1,54,296	25.83	935	80.92	12.51	41.60
	Guwahati	9,62,334	219.06	931	82.88	10.32	43.14
	Imphal	4,18,739	74.79	1050	79.43	8.78	45.10
	Jorhat	1,53,889	59.64	934	81.32	9.49	44.19
	Nagaon	1,48,496	18.21	969	78.34	8.73	40.96
	Shillong	3,54,759	60.82	1007	80.59	61.96	42.22
	Silchar	2,29,136	30.39	984	81.21	14.17	38.44
	Tezpur	1,02,505	26.61	959	81.52	10.48	40.19
	Tinsukia	1,26,389	26.67	875	80.17	6.94	41.03
Total	33,43,963	729.84	973	82.28	24.59	42.57	

SCST%-Scheduled Caste/Scheduled Tribe Percentage & WPR-Work Participation Rate

Source: Computed by author from Census of India, 2001 & 2011

Table 5
Demographic Changes of the Major Urban Systems of NE India, 2001-2011

Cities	Annual Urban Growth Rate	Increase in Area	Increase in Sex Ratio	Increase in Literacy Rate	Increase in SC/ST %
Agartala	4.84	24.46	5	-	-
Aizawl	2.85	0	57	-	-
Dibrugarh	1.21	0	57	2.35	0.38
Guwahati	1.75	2.27	96	5.81	1.64
Imphal	4.14	19.28	31	1.36	-0.16
Jorhat	1.47	0	54	4.21	1.12
Nagaon	2.05	2.35	69	3.60	-1.00
Shillong	3.25	33.77	17	4.14	4.09
Silchar	2.45	0.01	32	5.25	4.17
Tezpur	-0.27	3.14	199	-1.49	1.91
Tinsukia	1.69	0.38	60	4.45	0.55
Total	2.51	85.66	67	-	-

Source: Computed by author from Census of India, 2001 & 2011

Figure 6

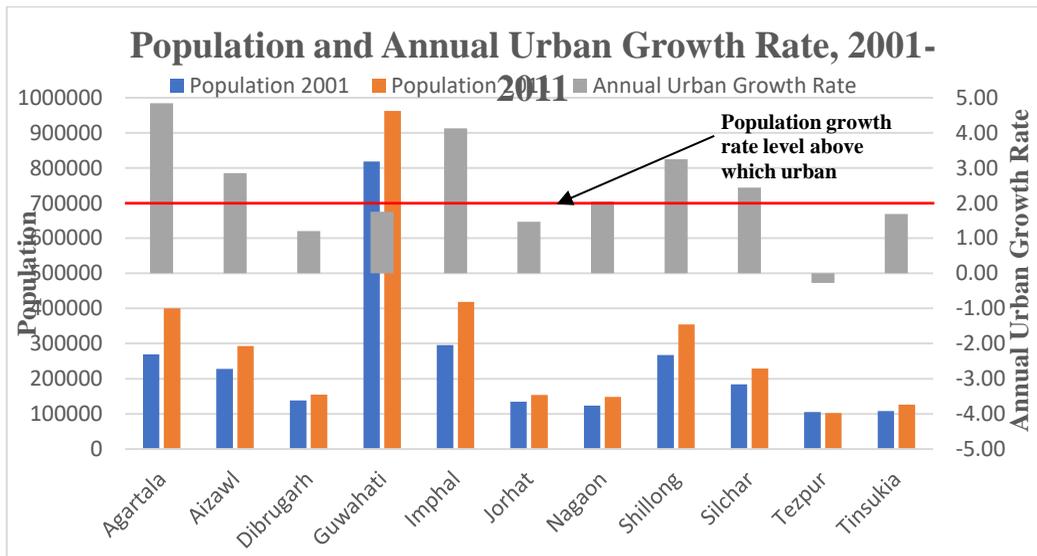


Table 7 presents the results of Pearson's Correlation Test, analysing the relationship between various migration growth rates and annual urban growth rates from 2001 to 2011. Overall migration growth shows a weak positive correlation with urban growth ($r = 0.265$), though it is not statistically significant ($P = 0.432$), indicating a limited influence on urban expansion. Inter-state migration exhibits a moderate positive correlation ($r = 0.489$) but is not statistically significant. In contrast, migration from Asia has the strongest positive correlation with urban growth ($r = 0.607$) and is statistically significant ($P = 0.047$), suggesting that regions receiving Asian migrants experienced notable urban growth. Non-Asian migration shows a moderate positive correlation ($r = 0.364$), though it is not significant. Rural-urban migration presents a weak positive correlation ($r = 0.207$), while urban-urban

migration shows a slightly stronger correlation ($r = 0.252$), but neither is statistically significant. Moreover, rural-urban migration as a percentage of the city populations reveals a very weak negative correlation ($r = -0.145$), implying minimal impact on urban expansion.

Among the reasons for migration, moving with households has the strongest positive correlation with urban growth ($r = 0.684$) and is statistically significant ($P = 0.020$), highlighting its critical role in driving urbanisation. Migration for work shows a weak negative correlation ($r = -0.278$), while migration for business exhibits a moderate positive correlation ($r = 0.397$), though neither is statistically significant. Migration for education and marriage displays minimal or no correlation with urban growth. Overall, while migration from Asia and migration with households have a strong association with urban expansion,

other forms of migration show weaker or insignificant correlations. Figure 8 displays various scatter plots between annual urban growth rates and

different types, streams, and reasons for migration growth rates, 2001-2011.

Figure 7

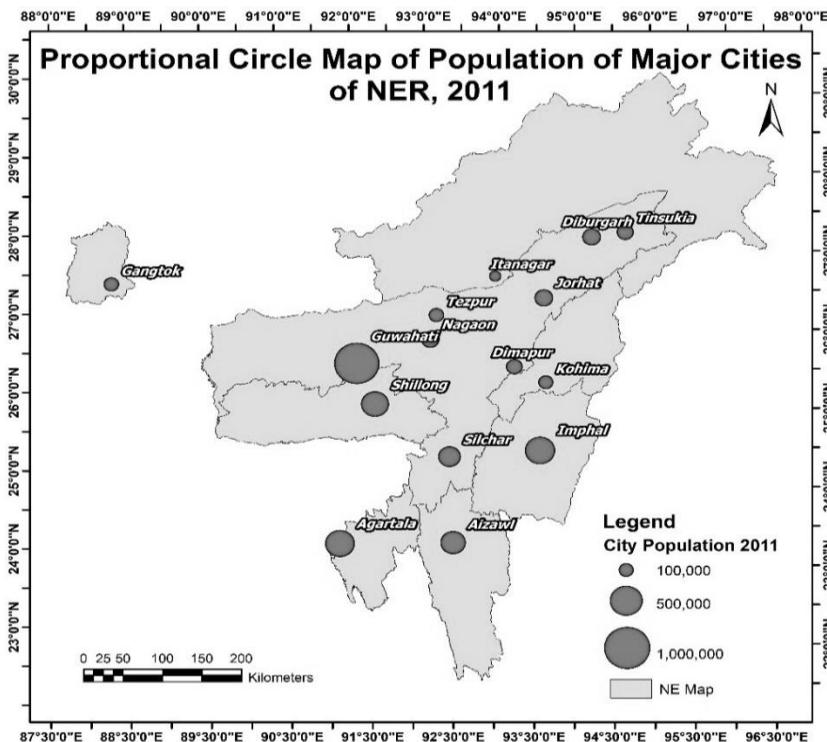


Table 6
Correlation Matrix of Key Variables of Major Cities of North East India, 2011

Variables	MR	TM	TMIS	TMNE	RUM	UUM	Pop.	Area	SR	LR	SCST	WPR
MR	1											
TM	0.379	1										
TMIS	0.400	0.890	1									
TMNE	0.118	0.543	0.725	1								
RUM	0.420	0.991	0.887	0.584	1							
UUM	0.339	0.985	0.909	0.523	0.961	1						
Pop.	0.151	0.917	0.878	0.742	0.889	0.912	1					
Area	0.376	0.904	0.860	0.814	0.924	0.867	0.897	1				
SR	-0.548	-0.148	-0.270	0.200	-0.138	-0.201	0.133	0.105	1			
LR	0.396	0.367	0.207	0.446	0.436	0.208	0.303	0.465	0.237	1		
SCST	-0.141	-0.042	0.011	0.604	0.055	-0.146	0.048	0.284	0.510	0.559	1	
WPR	0.035	0.195	0.168	0.331	0.229	0.171	0.264	0.544	0.329	0.194	0.473	1

MR-Migration Rate, TM-Total Migrants, TMIS-Total Migrants Inter-State, TMNE-Total Migrants North-East, RUM-Rural-Urban Migration, UUM-Urban-Urban Migration, Pop.-Population, SR-Sex Ratio, LR-Literacy Rate, SCST Scheduled Caste/Scheduled Tribe Percentage, and WPR-Work Participation Rate.

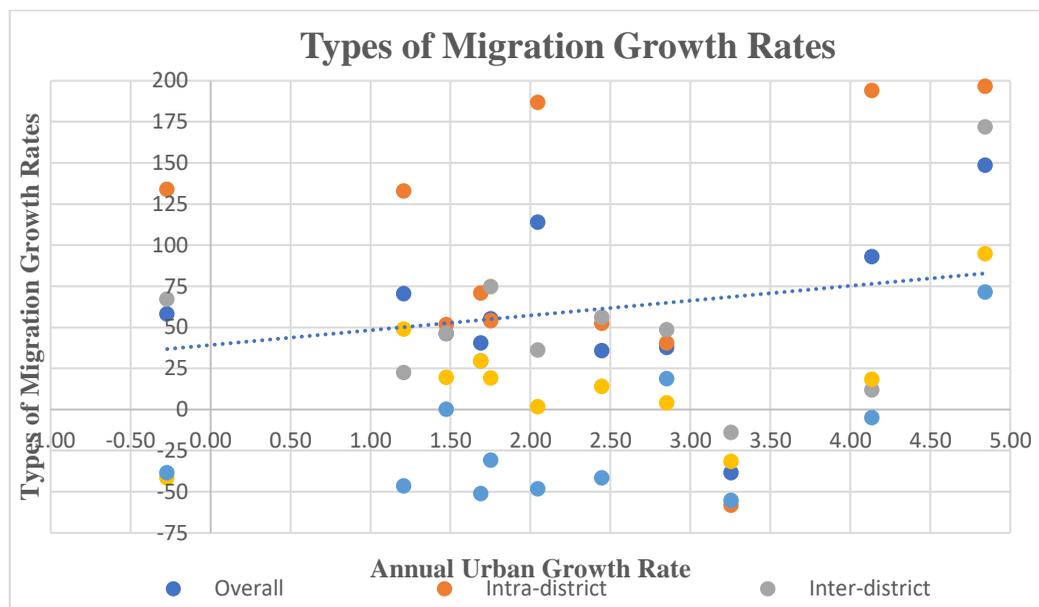
Table 7
Pearson's Correlation Test Results with Annual Urban Growth Rate, 2001-11

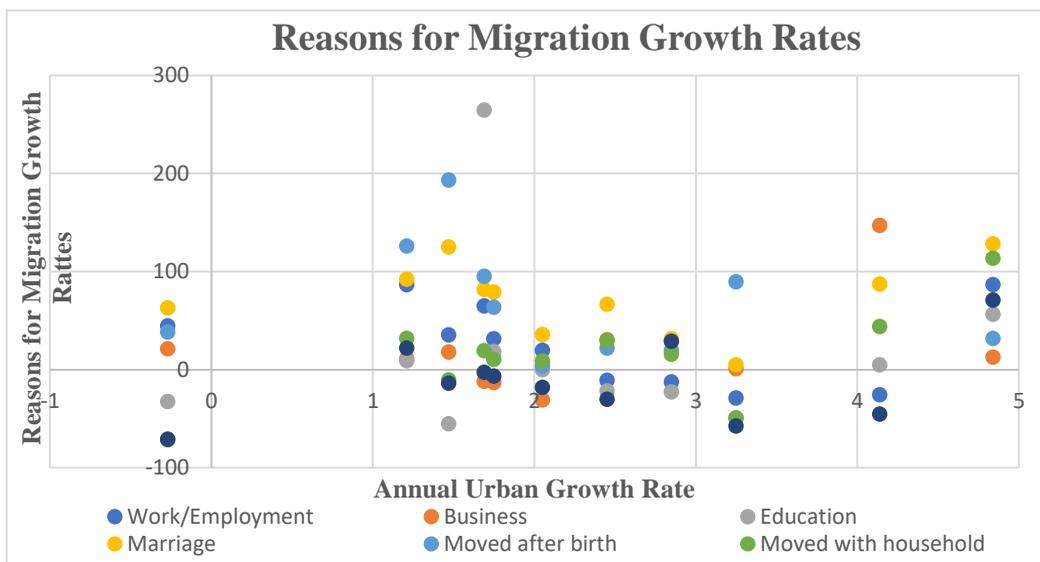
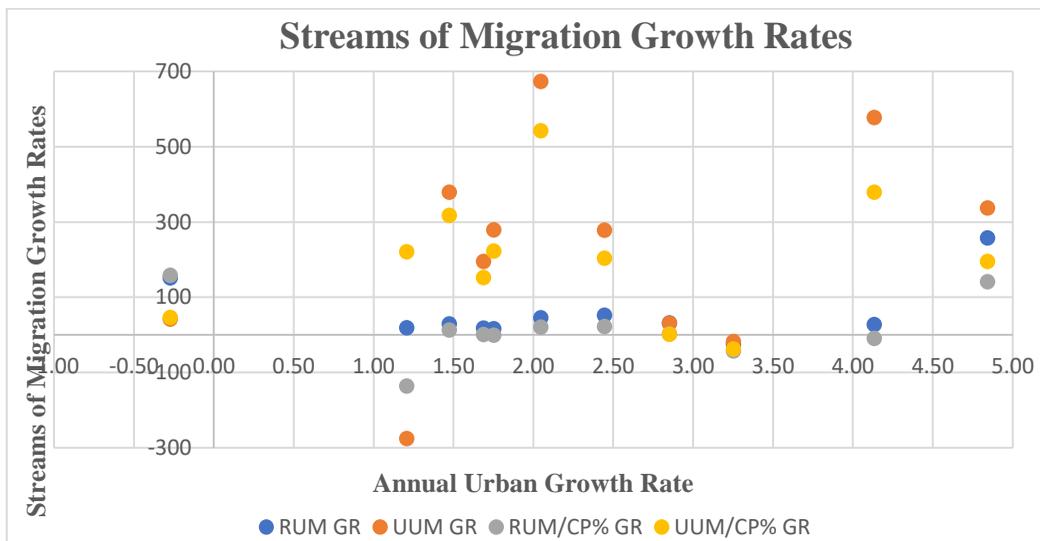
Category	Variables	r	P-value
Types of Migration	Overall Migration GR	0.265	0.432
	Intra-district Migration GR	0.147	0.670
	Inter-district Migration GR	0.251	0.456
	Inter-state Migration GR	0.489	0.127
	From Asia Migration GR	0.607	0.047**
	From Non-Asia Migration GR	0.364	0.271
Streams of migration	Rural-Urban Migration GR	0.207	0.541
	Urban-Urban Migration GR	0.252	0.454
	Rural-Urban Migration/CP% GR	-0.145	0.670
	Urban-Urban Migration/CP% GR	0.079	0.818
Reasons For Migration	Work/Employment GR	-0.278	0.407
	Business GR	0.397	0.227
	Education GR	0.029	0.933
	Marriage GR	0.074	0.828
	Moved after birth GR	0.366	0.269
	Moved with household GR	0.684	0.020**
	Others GR	0.401	0.222

GR-Growth Rate, CP-City Population & **Statistical significance at 95%.

Source: Calculated by the author

Figure 8
Scatter Plots between Annual Urban Growth Rate and Various Migration Growth Rates, 2001-2011





The Correlation Matrix (Table 6) reveals several key relationships among variables related to migration and demographics in the major cities of Northeast India in 2011. Starting with the Migration Rate, it shows a moderate positive correlation with Total Migrants ($r = 0.379$), indicating that as the number of migrants increases, the overall migration rate also tends to rise. Migration Rate also exhibits a positive correlation with Rural-Urban Migration ($r = 0.420$),

suggesting that higher migration rates are linked to greater rural-urban migration. However, the Total Migrants show strong positive correlations with several migration-related variables. It is highly correlated with Total Migrants Inter-State ($r = 0.890$) and Urban-Urban Migration ($r = 0.985$), indicating that both inter-state and urban-urban migration strongly influence the overall migrant population. Total Migrants also show a strong positive

correlation with population ($r = 0.917$), suggesting that cities with larger populations tend to attract more migrants. Furthermore, Total Migrants are strongly correlated with area ($r = 0.904$), suggesting that larger cities, in terms of land area, tend to have more migrants.

The correlation of Total Migrants into the North-East (TMNE) with other variables highlights some unique regional dynamics. TMNE has a moderate positive correlation with population ($r = 0.742$) and a strong positive correlation with area ($r = 0.814$), indicating that cities with larger populations and land areas tend to attract more migrants into the Northeast. TMNE also shows a moderate correlation with RUM ($r = 0.584$), suggesting that rural-urban migration is somewhat related to migration into the North East.

Lastly, other variables, such as the Scheduled Caste/Scheduled Tribe Percentage (SC/ST) and Work Participation Rate (WPR), show weaker correlations with migration-related variables. However, SCST has a moderate positive correlation with TMNE ($r = 0.604$), suggesting that regions with a higher SCST population tend to attract more migrants into the North-East. WPR has weak-to-moderate correlations with most migration variables, with the strongest being with area ($r = 0.544$), indicating that larger cities may offer more employment opportunities for migrants.

Table 8 presents the multiple regression results examining factors influencing the Total Migrants and Total Migrants Inter-State in major

cities of North East India. Both models have very high R-squared values (0.98 for Total Migrants and 0.99 for Inter-State Migrants), indicating that the independent variables explain nearly all the variation in the migration outcomes.

The intercept for Total Migrants (757,873.57) is not statistically significant, indicating the baseline migration level is close to zero. The population has a small positive coefficient (0.05) with no significant effect. However, area size has a significant positive effect (coefficient = 2,687.09, $P = 0.0365$), suggesting larger cities attract more migrants. The Sex Ratio shows a negative, non-significant relationship (coefficient = -291.88), indicating little impact on migration. Other factors, such as Literacy Rate, SCST Percentage, and Work Participation Rate, also show no significant relationships with total migrants, although they do indicate some trends.

For Total Migrants Inter-State, several key predictors emerge. The intercept (472,990.99) is significant ($P = 0.0011$), reflecting a strong baseline level of migration. Population has a marginally significant positive effect (coefficient = 0.04, $P = 0.0507$), indicating that larger cities attract more migrants. Area positively influences migration (coefficient = 289.28, $P = 0.0175$). In contrast, the Sex Ratio shows a significant negative effect (coefficient = -181.53, $P = 0.0026$), suggesting higher female ratios lead to lower migration. Higher Literacy Rates also negatively impact migration (coefficient = -2,415.54, $P = 0.0100$).

Additionally, SCST Percentage positively influences migration (coefficient = 220.83, P = 0.0135), while Work Participation Rate shows a negative relationship (coefficient = -2,800.21, P = 0.0186).

Table 8
Multiple Regression Results of Total Migrants from Urban Statistics

Dependent Variable (Y)	Total Migrants		Total Migrants Inter-State		
	Independent Variables (X)	Coefficients	P-value	Coefficients	P-value
R Square		0.98	0.0017***	0.99	0.0002***
Intercept (β_0)		757873.57	0.3165	472990.99	0.0011***
Population (β_1)		0.05	0.7874	0.04	0.0507*
Area (β_2)		2687.09	0.0365**	289.28	0.0175**
Sex Ratio (β_3)		-291.88	0.4105	-181.53	0.0026***
Literacy Rate (β_4)		2864.18	0.6656	-2415.54	0.0100**
SCST Percentage (β_5)		-1058.31	0.1596	220.83	0.0135**
Work Participation Rate (β_6)		-17777.98	0.1065	-2800.21	0.0186**

The sample size is 13. *, ** & ***- Level of statistical significance at 10%, 5% & 1% respectively.

Source: Calculated by the author from the Census of India, 2011.

Conclusion

Migration in Northeast India has reshaped its demographic and socio-political landscape. Intra-district migration is dominant, particularly in cities such as Nagaon and Dimapur, while Agartala and Guwahati experience significant growth in migration. Illegal immigration, especially from Bangladesh, has altered the region's population, contributing to ethnic conflicts and resource competition. Migration from Myanmar due to conflict has added to these pressures, especially in Manipur and Mizoram. Urban centres in Assam and Tripura face overcrowding and the growth of the informal sector, making migration a key and contentious issue in the region. In Northeast India, cities like Guwahati and Agartala experienced the highest influx of migrants, with rural-urban migration outpacing urban-urban streams. Migration is driven by

economic insecurity, rural stagnation, and better opportunities in urban centres. Rural-urban migration was most prominent in Guwahati, while urban-urban migration surged in Nagaon. However, cities like Shillong and Tezpur saw declines in both migration streams. The overall shift has impacted labour markets, urban growth, and living conditions across the region. By 2011, Guwahati had the largest number of inter-state migrants (88,430), while Imphal had the fewest (4,357). Most migrants came from Eastern India (48.39%), followed by Northeast India (32.74%). A lack of educational infrastructure, unemployment, and sociopolitical unrest drove migration. Key cities such as Guwahati, Dimapur, and Shillong received the highest inflows, particularly from Assam and Meghalaya. The push factors included labour displacement, floods, and ethnic conflicts. Migration patterns in Northeast India reflect survival

strategies rather than upward mobility, impacting labour markets and city growth. In 2011, 25.19% of migrants to Northeast Indian cities moved for work, 22.58% for marriage, and 20.09% relocated with their household. Smaller percentages migrated for education (2.28%) or business (11.68%). Aizawl had the highest share of work-related migrants (38.78%), while Nagaon had the highest share of marriage-related migrants (29.33%). Migration due to moving after birth saw the largest growth (72.01%) between 2001 and 2011, followed by marriage-related migration (63.44%). Work-related migration grew modestly (12.06%), while migration for education and business declined significantly. Female migration, often tied to marriage, is increasing for educational and employment reasons, especially in urban areas.

By 2011, the population of major cities in Northeast India had grown to 3.3 million. Guwahati remained the largest city, with 962,334 residents. Guwahati accounted for 28.78% of the population and 30.01% of the urban area, with its land area expanding to 219.06 sq.km. Imphal had the highest sex ratio (1,050 females per 1,000 males), while Tinsukia had the lowest (875). Aizawl had the highest literacy rate at 86.29% and the largest percentage of the SC/ST population (92.02%), while Nagaon had the lowest literacy rate at 78.34%. Between 2001 and 2011, the cities experienced an average urban growth rate of 2.51% per year, with Agartala showing the highest growth (4.84%) and Tezpur experiencing a decline (-

0.27%). Imphal and Aizawl had the highest work participation rates, while Silchar had the lowest. Migration trends showed that inter-state migration had a moderate positive correlation with urban growth, and migration from Asia had a significant impact on urban expansion. The study's analysis revealed strong correlations between migration patterns, city size, and demographic factors such as sex ratio and literacy rates. While migration from Asia and household relocation were key drivers of urban growth, other factors, such as education and marriage, had minimal influence.

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